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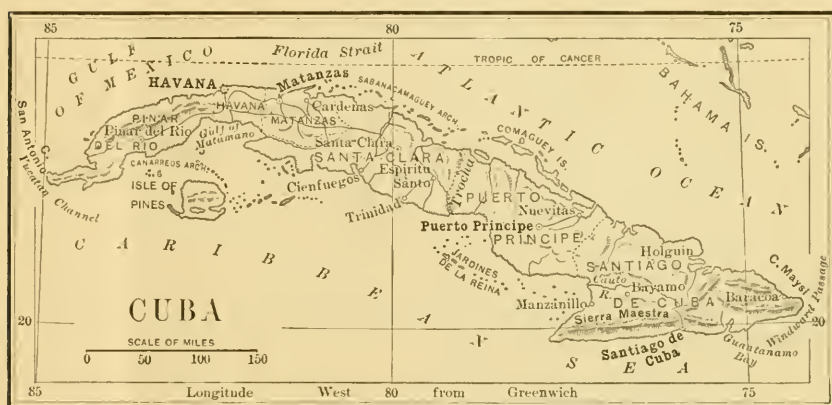
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CUBA.

Physical Features.—The island of Cuba is situated directly in front of the broad entrance to the Gulf of Mexico, and its western extremity is almost midway between the peninsulas of Yucatan and Florida. It is the largest of a great chain of islands which, extending eastwardly a distance of 1,350 miles from the Gulf, constitute a peculiar geographic region distinct in many of its characters from the regions that are adjacent to it. These islands may be



described as a partially submerged range of mountains—the backbone, perhaps, of an ancient continent which now forms the bottom of the sea. This mountain range is highest at its middle part, that is, in eastern Cuba, western Haiti, and northeastern Jamaica. It is lowest at its two extremities—in western Cuba and the easternmost of the Virgin Islands, where, with the exception of a few isolated hills, it rises but slightly above the present level of the sea. The loftiest peaks are in Haiti and reach an altitude of nearly 11,000 feet. In Cuba the loftiest summits are those of the Sierra Maestra, where the Pico de Tarquino attains an elevation of 7,750 feet. The mountains are, in the main, composed of masses of noncalcareous formations and igneous rocks. Below 2,000 feet they are flanked by a succession of horizontal terraces, the results of various general upliftings and subsidences alternating with long periods of rest. We may conceive of these islands, therefore, as consisting of

mountain peaks and terraces, the lowermost and broadest of these terraces determining the area and, to some extent, the configuration of each.

The island of Cuba is long and narrow. The Spaniards have compared its shape to that of a bird's tongue; others have likened it to a cornucopia; and still others have described it as an irregular crescent with its convex side on the north. Its length is 720 miles—equal to the distance from New York to Cincinnati; its average breadth is 80 miles. Its area, including the 1,300 keys or coastal islands which belong to it, is nearly 46,000 square miles. It is, therefore, a little larger than the state of Pennsylvania. Its coast line, measuring all its meanderings, has a total length of nearly 7,000 miles.

The coast is generally low and bordered by coral formations and parallel lines of coral reefs and coral isles. From the shore broad meadows and fertile plains extend inland until met by the slopes and foothills of the central mountain range. There are no great stretches of sand, as often occur in lands bordering the sea, and the proportion of marshy lands is small. In some places, especially in the eastern part, the highlands approach nearer to the shore and occasionally present a bold headland to the sea. According to Humboldt the general physical aspect of the interior is "gently undulating and, like that of England, not more than 280 to 380 feet above the level of the sea." The longest mountain range is the Sierra de los Organos, which extends from the western province of Pinar del Rio eastwardly, nearly parallel with the axis of the island. With its eastern continuation of hills, it forms the chief watershed of the island. This range nowhere rises to a very great height, its loftiest peak having an elevation of only 2,500 feet. Near the middle of the island there is a broad depression, forty-seven miles in width, extending from shore to shore, and occupied by low-lying plains. This is the natural dividing line between East Cuba and West Cuba. The highest mountains, as before stated, are the Sierra Maestra, which extend along the straight east-and-west coast of Santiago de Cuba. The eastern third of this range is called the Sierra del Cobre.

The general course of the rivers is either north or south, and all are, of course, short. The Rio Cauto, however, the largest on the island, flows in a westerly direction and, after a winding course of 150 miles, falls into the Bay of Manzanillo. On the north the largest river is the Sagua la Grande.



Climate.—As Cuba lies wholly within the torrid zone, the climate of those parts next to the sea is similar to that of other tropical countries. In the elevated mountainous districts, however, a milder atmosphere prevails and the weather is far more agreeable. At Havana the average temperature, taking the year round, is about 77° . The warmest months are July and August, when the mercury ranges between 88° and 76° , and indicates an average temperature of 82° . The coldest months are December and January, when the temperature seldom falls below 58° or rises above 78° , but maintains an average of about 72° . In the interior, however, the nights are frequently cool, and in January frost sometimes occurs and the mercury falls to the freezing point. Only once in the history of the island has snow been known to fall, and that was in 1854.

As in most tropical countries, there are here two seasons in the year—a wet, from May to October, and a dry, during our winter; yet there is no month in which rain does not fall, and there are instances on record of years in which more rain has fallen during the so-called dry season than during the wet. The average yearly rainfall at Havana is 51.73 inches, which is only 7 inches greater than that at Washington. The prevailing wind is the northeast trade wind, but in January and February cool northerly winds, called “northers,” are occasionally experienced in the western portion of the island. Thunderstorms are frequent, but they do not usually produce much damage. Severe tropical storms, or hurricanes, are of almost annual occurrence, being most common in August, September, and October. These are often very destructive. In 1896 a hurricane destroyed nearly all the banana plantations in the east. Earthquakes are frequent in eastern Cuba, but are seldom felt in the western parts.

In general, the climate of Cuba is much more healthful than is commonly reported. Much of the disease peculiar to the island is the result, not of unhealthful climatic conditions, but of neglect of drainage and other sanitary precautions. During the winter months the weather is ideally perfect, and in summer it is less oppressive than in many parts of the United States.

Productions and Resources.—The soil is of remarkable richness and is practically inexhaustible. In many places the same crops have been grown on the same land for a hundred years or more, without the use of fertilizers, and yet the ground has not been impoverished. The chief agricultural products are sugar cane, tobacco, and coffee. The cultivation of sugar cane was introduced in 1523,

thirty years after the discovery of the island. It has ever since been the most important industry. Previous to the beginning of the revolution in 1895, the entire middle portion of the island, from Rio Cauto to Pinar del Rio, except where too mountainous, was literally one vast field of cane. The plantations were of various extent, ranging from 100 to 1,000 acres each, and their cultivation engaged the labor of large numbers of men. It is estimated that if all the land in Cuba suitable to the growth of sugar cane were devoted to that industry, it might fully supply the whole Western Continent. Already, in spite of the obstacles which have hindered the development of every branch of agriculture, the island has produced in a single year more than 1,000,000 tons of sugar.

Tobacco grows well in all parts of the island, but the best is produced in the region west of Havana and along the southern slopes of the Sierra de los Organos. The tobacco here grown is famous all over the world and is unequalled in quality by any other. In 1893 the exports of tobacco from Cuba were reported as 6,160,000 pounds of leaf and 134,210,000 cigars.

The first coffee plantation was established in 1727, the trees being obtained from seed brought from Martinique. The cultivation of coffee was until recently an extensive industry, and considerable quantities were exported. The mountain sides and hills in the eastern part of the island are especially adapted to this industry. Although some coffee is still raised, the trees on most of the plantations have been destroyed in order to make room for tobacco or sugar cane, which can be cultivated with greater profit.

Oranges grow spontaneously in all parts of the island, and were formerly exported in considerable quantities. Bananas are cultivated in the eastern provinces, and pineapples are abundant in the west, and especially in the Isle of Pines.

Although rice and Indian corn are indigenous to Cuba, the soil is not favorable to the cultivation of cereals, and but little attention is paid to them. There is not a single flour mill on the island.

During the last war of the Cubans with Spain nearly every industry was practically destroyed. The cane fields were abandoned and became overgrown with underbrush and weeds, and in 1897 the total product of sugar did not exceed 35,000 tons. The tobacco plantations have suffered in the same way, and the output of leaf tobacco and cigars is less than one fifth of what it was before the war. During the period of prosperity in Cuba, there were extensive cattle farms, cotton plantations, orchards and market gardens,

chocolate plantations, and bee farms; but all these have been partly or wholly destroyed.

Forest Products.—Although Cuba was settled nearly four hundred years ago, primeval forests still cover one half its area, or about 13,000,000 acres. These forests abound in trees remarkable for their size, foliage, and fragrance. Of palm trees there are over thirty different species. Pines are abundant in the western part and in the Isle of Pines. Among the hard woods of great value are the mahogany, lignum vitæ, granadilla, sabicu, Cuban ebony, and many others. Here also grow logwood, redwood, and the odorous cedar, which is used for cigar boxes and linings of cabinet work.

Mineral Resources.—The mineral resources of Cuba are still to a large extent undeveloped. Copper was mined by the natives before the island was discovered by Columbus. In the Sierra Maestra range, a few miles from Santiago, there are rich mines of this metal, which formerly produced 50 tons per day. From them an average of more than \$2,000,000 worth of copper ore was shipped annually to the United States. They are now partly filled with water and worked only to a limited extent. The iron mines, also near Santiago, are of great importance. They are controlled by American companies, and produce from 30,000 to 50,000 tons of iron ore per month, most of which is shipped to manufactories in Pennsylvania. This ore is said to produce from 62 to 67 per cent. of pure iron. On the south coast, between Santiago and Manzanillo, large deposits of manganese have been discovered. Before the war, mines were opened and a railroad was built for the transportation of the mineral to the seacoast; but all operations were stopped by the insurgents.

Near Santa Clara is a large deposit of asphaltum, which for forty years has supplied material for making the gas with which that city is lighted. Near Cardenas, submerged by the sea, is found a fine variety of pure asphaltum, which is used in the United States for the manufacture of varnish. Other large deposits of this mineral are known to exist, but have never been utilized.

Neither gold nor silver has been found in any considerable quantities. The Spaniards who first came to the island sent large amounts of gold to Spain, but this had been wrested from the natives, who had probably been centuries in collecting it. In 1827 silver mines were opened in Santa Clara, which produced nearly half a pound of pure silver to every hundred pounds of ore; but these mines have ceased to be productive.

Coal is abundant in many parts of the island, and is chiefly of a bituminous character. In the Isle of Pines a fine quality of marble is obtained, which is susceptible of a very high polish.

Manufactures and Commerce.—Manufactures were never encouraged by the Spaniards, and the people have heretofore preferred to exchange the products of the soil for goods already manufactured. Hence there are no mills nor factories of any importance in the island. There are about 1,000 miles of railway, but the means of communication between the different cities and towns are exceedingly limited. The roads are chiefly little more than paths. Goods are conveyed into the interior by means of ox carts and pack mules. The only carriage used outside of the cities is a peculiar two-wheeled vehicle called a volante.

No other island in the world, in proportion to its size, has a greater number of excellent harbors; and yet there is but little communication with the neighboring islands, and foreign commerce is comparatively limited. By far the greater part of the trade has been with the United States, amounting in 1896 to something more than \$47,000,000, but in 1897 to only \$26,000,000. The principal exports are sugar, tobacco, tropical fruits, molasses, and lumber. The imports consist mainly of wheat from the United States, jerked beef from South America, rice from Spain and the East Indies, wine and olive oil from Spain, petroleum from the United States, and British, German, and American manufactured articles. About 1,200 vessels sail from Havana each year, and lines of steamers connect that port with American and European cities.

History and People.—Cuba was discovered by Columbus on the 28th of October, 1492, and was named by him Juana, in honor of Prince John, the son of Ferdinand and Isabella. It was afterwards known by various names, as Fernandina, Santiago, and Ave Maria. It finally retained the designation by which it was known among the natives at the time of its discovery—Cuba. The first permanent settlement was made by Diego Columbus (the son of Christopher) at Baracoa in 1511. Havana was founded in 1519. For two centuries the history of the island is but little more than an account of its defense against successive invasions by the French, English, and Dutch. In 1762 Havana was captured by the English under Lord Albemarle after a siege of more than two months' duration. The spoil that was divided among the victors amounted to nearly \$4,000,000. By the treaty of Paris, in the following year, the island was restored to Spain. Since 1808 Cuba has been ruled

by governor captains-general appointed by the Spanish government and vested with almost absolute power. The tyranny of these governors, oppressive taxation, and the deprivation of political rights, have led to many uprisings and rebellions among the Cubans. The most noted of these were the "Black Eagle" conspiracy in 1829, the negro insurrection in 1844, the rebellion of Narciso Lopez in 1844, the ten years' revolution which began in 1868, and the last war for independence, 1895-98. In 1848 President Polk proposed to Spain to transfer Cuba to the United States for a consideration of \$100,000,000. In the United States senate in 1858 a bill was offered proposing to buy the island for \$30,000,000—but was withdrawn before coming to a vote. By the terms of the protocol agreed upon between Spain and the United States in September, 1898, Spain relinquished all claims to sovereignty over her West Indian possessions, and the United States assumed jurisdiction over Cuba pending the establishment of a government by the people.

The latest census of Cuba, published in 1887, gave the population as 1,631,687, of whom 520,384, or about one third, were colored. It has been estimated that during the last war no fewer than 300,000 of the inhabitants perished. The people of Cuba are divided into three classes,—the native Spaniards (of whom there are about 30,000, chiefly in Havana); the creoles, who form the better class of native Cubans, and are planters, farmers, and traders; and the negroes, most of whom are descendants of slaves imported from Africa during the present century. Of the last-named class nearly one half are mulattoes. There are also about 30,000 Chinese male laborers in the island.

Education and Religion.—Education is much neglected. It is estimated that not more than one tenth of the children are regularly instructed in schools, and that about 70 per cent. of the people are entirely illiterate. Under Spanish rule there was a royal university at Havana, with medical and law schools, and also a smaller institution, known as the Royal College of Havana. In all the cities several private schools are maintained, but these are only for the rich. All the learned professions, as well as all offices of honor or profit, have hitherto been occupied by Spaniards.

Under Spanish rule, the Roman Catholic was the only religion recognized in the island. All ecclesiastical affairs were under the jurisdiction of the Archbishop of Havana.

Cities.—Havana, the capital and largest city, is situated on the south and west sides of the capacious harbor of the same name.

Having been for centuries the seat of the Spanish government in the island, it has some of the manners and the gay appearance of a European capital. Its wharves, fortifications, hospitals, churches, and government buildings are all worthy of notice. The beauty and picturesqueness of the city are enhanced by its numerous pleasure grounds and parks. During times of peace the streets and quays are thronged with busy life. Most of the foreign trade of the island passes through this port and aggregates more than \$50,000,000 annually. The population is about 200,000.

Santiago, or Saint Jago, as it is called by the Cubans, is the second city in size and commercial importance. It is situated in the southeastern part of the island, in the province of the same name, and is in the immediate neighborhood of the iron and copper mines. Its population is given as about 60,000.

Other important places are Matanzas (27,000), on the north coast, east of Havana; Pinar del Rio (21,770), in the western part; Puerto Principe (46,640) and Cienfuegos (27,430), in the central part, the former being the chief interior city of Cuba, while the latter is situated on a fine bay of the southern coast; and Holguin (34,760) and Manzanillo (23,200), in the eastern part.

PUERTO RICO.

Physical Features.—The island of Puerto Rico is a little farther south than Cuba, the latitude of its most northern point being $18^{\circ} 30' N.$, while that of the most southern point of Cuba is $19^{\circ} 20' N.$ Its westernmost cape, Punta del Jiguero, is in longitude $67^{\circ} 10' W.$, being 425 miles from Cape Maysi, the easternmost point of Cuba. The distance on a straight line from New York to Puerto Rico is about 1,350 miles, or nearly the same as from New York to



Topeka, Kansas. The center of the island is exactly south of the eastern part of Maine. The nearest mainland is that of Venezuela, 420 miles due south.

In size Puerto Rico is the smallest of the four islands known as the Greater Antilles, its area being only 3,531 square miles, or about one twelfth that of Cuba. In shape it much resembles the state of Connecticut, although it is not so large by some 1,400 square miles, and its bounding lines are of course more irregular. Its average length is 95 miles; its average breadth, 35 miles.

A range of hills traverses the island from east to west. These nowhere attain any great height, except in the extreme northeast, where the peak known as El Yunque, or "the anvil," rises to an altitude of more than 3,600 feet. The whole northeastern half of the island is rugged and uneven, and the central range or cordillera is bordered on both sides by innumerable round-topped hills which

give to the landscape a peculiar and most impressive appearance. These hills, however, are not rocky and barren, but are covered with a luxuriant vegetation and may be cultivated to their very summits. As they lie in the course of the northeast trade winds, and frequently intercept the moisture-laden clouds which accompany these winds, the northern part of the island receives more rain than the southern. From the hills and elevated interior more than 1,200 streams flow to the sea, and of these 47 are said to attain the length and volume of considerable rivers. The longer streams are in the north. In the south, droughts sometimes occur, and in a few districts artificial irrigation has been found necessary.

Climate.—The climate does not differ materially from that of other tropical countries. There being no large areas of marshland or other miasmatic regions, the conditions are generally more healthful than in Cuba. The average temperature during the summer months is 83°; during the winter months 76°. The thermometer seldom registers above 90°. The hottest months are June, July, August, and September, but the mean monthly temperature throughout the year varies not more than 7°.

The average rainfall for the past twenty years has been 59.5 inches, or about the same as that at New Orleans. The driest month is February; the rainiest is November. Rain falls most frequently between noon and 4 o'clock p.m., and very seldom at night. The prevailing winds are from the east and north; and tropical hurricanes are not uncommon between July and October.

Vegetation and Agriculture.—Most of the hills are well wooded, the native forests still covering their summits. Here flourish immense gum trees and many varieties of palms and tree ferns. Other trees, valuable for lumber, exist in great numbers. Among these are the mahogany, the cedar, the walnut, and the laurel, besides many less familiar varieties. In some districts may be found a species of cocoloba, called by the natives "ortegon," which is remarkable for its immense purple spikes; the stately sabrino tree, covered with white odorous flowers and silvery leaves; and another unnamed tree, conspicuous for its large purple flowers. Everywhere grow trees and shrubs valuable for their fruit or for their medicinal qualities. Cocoanut palms, tamarinds, prickly pears, guavas, mangoes, and all kinds of tropical fruit trees abound. Among the cultivated plants, bananas are among the most common and profitable. They begin to bear within ten months from planting and are said to continue producing fruit for sixty years. Two hundred millions of bananas

are said to be produced annually. Other fruits which grow in great abundance are oranges, limes, cocoanuts, and pineapples.

The coffee tree thrives best on the hillsides a thousand feet above the level of the sea. Its cultivation was begun in 1722, when some plants were introduced here from the island of Martinique. In some districts there are now extensive plantations, and more than 34,000,000 pounds are produced annually. Sugar cane also thrives on the uplands and is cultivated to an altitude of 3,000 feet. The amount of sugar produced from a given area is, on an average, greater than in any other West Indian island. The total annual product of the Puerto Rican plantations is estimated at 140,000,000 pounds. The lowlands are peculiarly favorable to the cultivation of tobacco, of which more than 7,000,000 pounds have been produced in a single year. Most of it was formerly sent to Cuba to be made into cigars. Rice forms the chief food of the laboring classes and is of a mountain variety, flourishing best, not on the wet lowlands, as in our Southern states, but on the hillsides. Indian corn is here in its native home and grows with but little cultivation.

There are but few large plantations, the land being mostly divided into small holdings, of which there are said to be more than twenty-one thousand.

Large herds of cattle are pastured on the lowland plains, and many beeves are exported to the neighboring islands. Horses of a small but superior breed are also raised in considerable numbers. All kinds of domestic fowls are abundant and require but little care. A good deal of attention is paid to bee-keeping, and the value of the honey exported annually from the island exceeds half a million dollars.

Animal Life.—There are no beasts of prey in Puerto Rico, and no wild animals larger than the armadillo. There are many reptiles, especially lizards, but none that are poisonous. Birds are multitudinous in variety and are noted both for their fine singing and for the beauty of their plumage. The climate is favorable to insects, and these are so numerous as to be the most serious drawback to the otherwise almost perfect conditions of life on the island. The most formidable among these pests are centipeds, scorpions, tarantulas, mosquitoes, ants, ticks, and wasps. Intolerable as these are to strangers, the natives, having always been accustomed to them, appear to be but little annoyed by their presence.

Minerals.—The mineral resources, although they have never been fully investigated, are probably not very extensive. The Spaniards,

when they first took possession of the island, found grains of gold among the sands of some of the rivers; and it is said that the natives still obtain the metal in small quantities by washing the gravel of the mountain streams. Copper, iron, and lead have been found, but in quantities too small to pay for the mining. Coal has also been discovered. Considerable salt has been obtained from the small saline lakes near the seashore.

Commerce.—A railroad around the island, having a total length of about 400 miles, has been begun, and a section of it, 137 miles in length, is now completed and in operation. There are nearly 500 miles of telegraph lines in use, connecting all the more important places. Under the Spanish rule these were controlled by the government. The roads are generally much better than those in Cuba, and public highways, aggregating 150 miles in length, radiate from the principal cities. An excellent macadamized road connects San Juan and Ponce. Transportation to places removed from the public highways is effected almost altogether on horseback.

The principal harbors are those of San Juan and Arecibo, on the north coast; of Ponce, Arroyo, and Guayanilla, on the south; of Aguadilla and Mayaguez, on the west; and of Humacao and Fajardo, on the east.

The chief exports from the island are coffee, sugar, tobacco, and honey. The value of all the exports in 1895 was \$14,629,494. The total imports during the same year were valued at \$16,155,056. More than one third of the entire trade was with Spain.

History.—Puerto Rico was discovered by Columbus when on his second voyage, November, 1493. The natives called the island Borinquen. In 1508 Ponce de Leon visited the island, and was delighted with the beauty of its scenery and the hospitality of its people. Two years later he returned and began to form a settlement at the place now called Pueblo Viejo, but abandoned it for the more favorable harbor of San Juan, where, in 1511, he founded the city of San Juan Bautista. The island, according to the reports of the Spaniards, was then almost as thickly populated as it is now, the number of natives being estimated at 600,000. Like most of the West Indian aborigines, they were a gentle and inoffensive people, and received their strange visitors with great demonstrations of delight. But when the Spaniards reduced many of them to slavery and compelled them to work in the mines, they rebelled, and, in the short but disastrous war which followed, were subdued and wholly destroyed. So complete was their annihilation that it was long

believed that no trace of them remained. Since 1856, however, archeologists have discovered and collected many interesting objects, such as spear heads, stone and clay images, and fragments of pottery, which doubtless were the work of these unfortunate people.

Ponce de Leon built for himself a castle on the point of land above the mouth of the harbor of San Juan, to which he gave the name of Casa Blanca; and here he lived until he sailed on the famous voyage which resulted in the discovery of Florida. Spain paid but little attention to the island. The settlements increased but slowly, and were more than once in danger of destruction. In 1529 the eastern coasts were ravaged by the Caribs, and the southern by French pirates. In 1595 Sir Francis Drake captured and sacked San Juan; and three years later the Duke of Cumberland made another attack upon the place, but with less success. During the seventeenth century both English and Dutch made repeated attempts against it, but were uniformly repulsed. The Puerto Ricans were also obliged to defend themselves against the incursions of the pirates and buccaneers who infested the West Indian waters. The fortifications of San Juan, even at the time of Sir Francis Drake, were said to be of remarkable strength, mounting seventy pieces of artillery, with thirty-four in the great morro or castle. The inhabitants have always regarded the place as impregnable. In 1797 the English made a last attempt upon San Juan, and after a three days' siege were obliged to retire. In 1870 the island was declared to be a province of Spain, and was divided into seven departments: Aguadilla, Mayaguez, Arecibo, Ponce, Bayamon, Guayama, and Humacao. In 1873, slavery, which had existed since the first settlement, was abolished. In 1898 the island was formally ceded by Spain to the United States.

People.—The last official census of Puerto Rico was taken in 1887, and showed a population of about 800,000. More than 300,000 of the inhabitants are negroes. The density of population is somewhat greater than in the state of Connecticut, there being an average of 225 people to the square mile. Dr. Carl Mauch, a German explorer, who spent some time in the island in 1875, describes the wretched condition of the rural population, which is composed largely of freedmen and the descendants of former slaves. They live, he says, "in miserable bamboo and palm-leaf hovels, in the midst of the most delightful scenery. They do no work beyond planting a few bananas and sweet potatoes and a little rice. Some poultry that they possess, swine, perhaps a cow, but in all cases a horse, mule, or

donkey, bring them in barely enough to clothe them and keep them alive. It seems as if they were reverting to the primitive state of their forefathers, transplanted hither from Africa."

Much superior to these in energy and in their manner of living are the gibaros, or small landowners in the country districts. They are an interesting people, descended from old Spanish stock, with a considerable admixture of native Indian blood. The labor on the large plantations is mostly performed by them. The planters, traders, and wealthy stockraisers form a still higher class, many of them being of pure Spanish descent. They are proud of their descent, and are generally happy and prosperous. Besides these, there are numerous other people of European origin—Germans, Swedes, Danes, Russians, Frenchmen, descendants of Moorish Jews, and natives of the Canary Islands. The inhabitants of the island, considered as individuals of a great community, have been described as "affable, generous, and hospitable to a fault. They are well proportioned and delicately organized; at the same time they lack vigor, are slow and indolent, possess vivid imaginations, are vain and inconstant, and ardent lovers of liberty."

Education.—There are 500 primary schools on the island, and yet but a small proportion of the children attend school, and education is regarded with but slight favor. There are in the cities a few secondary schools, and in San Juan two colleges. All these, except a few private schools, are under ecclesiastical control.

Cities.—San Juan Bautista, generally known as San Juan, or San Juan de Puerto Rico, is the capital. It is situated on the north coast at the western end of a small island which is connected with the mainland by bridges and a causeway. The harbor is one of the best in the West Indies. The western front of the island has a bold, precipitous shore, and here, commanding the entrance to the harbor, is the famous Morro Castle, long regarded as the strongest fortification in the West Indies. The city itself is surrounded by massive walls. The large public buildings and numerous churches give to the place an imposing appearance, especially when viewed from the harbor. The most noted buildings are the governor's palace, the Cuartel de Ballaja, used as quarters for the troops, the cathedral, and the city hall. Not half the houses are more than one story in height, and all are flat-roofed and without chimneys. The more respectable people live on the upper floors, while the ground floors are occupied by negroes and the poorer class of whites. Most of the buildings are of brick ornamented with stucco and painted in

various colors. The streets are straight and cross each other at right angles; but they are ill-paved and, although swept every day, are seldom in good condition. For water the people depend mainly upon cisterns in which the rain that falls upon the roofs is collected. There are no sewers in the city, and the drainage is very imperfect. As a result of the accumulation of filth and the total inattention to sanitary conditions yellow fever and other diseases peculiar to the tropics are frequent. The population of San Juan is about 30,000, one half of which consists of negroes and mixed races. There are a few small factories where household articles, such as brooms, matches, and soap, are made. There are also electric light, gas, and ice works.

Ponce, the second city of Puerto Rico, is on the southern side of the island, sixty miles from San Juan. The main part of it is built on a plain about two miles from the seashore. A fine road connects it with Playa, the port, where are a good harbor and large wharves. The population of Ponce is about 15,000; that of Playa 5,000, and both are practically one city. Ponce is similar in its general appearance to San Juan. Here are a customhouse, a bank, a theater, and an ice factory, gas works, three good hotels, and several churches. One of the churches is Protestant, and is said to be the only one of its kind in the Spanish West Indies.

Arecibo, on the north coast, is the headquarters of the sugar industry and the chief town of one of the most fruitful regions on the island. Its harbor is little more than an open roadstead. Goods are carried to and from the interior in flat-bottomed boats on the Rio Grande, which here has its outlet. With better harbor facilities and good roads, Arecibo would develop into a place of no small commercial importance. It has now a population of about 7,000.

Other cities and towns which have considerable trade and are well located for commerce are Mayaguez (population 20,000) in the west; Aguadilla (5,000) in the northwest, connected with Mayaguez by a horse-car line; Fajardo (8,779) on the east coast, noted for its manufacture of muscovado sugar; and Arroyo (1,200) in the south-east part, also an important sugar-making center.

Other West India Islands acquired from Spain.—The islands of Mona, Culebra, and Vieques are politically united to and dependent upon Puerto Rico. Mona lies in the strait of the same name between Puerto Rico and Haiti. It is seven miles in length and two in breadth, and its shores are bordered by steep white cliffs 170 feet in height, and full of grottoes or caves.

Culebra is a short distance from the eastern end of Puerto Rico. It has an area of about fifteen square miles and a population of 500. It has no running streams, and water is obtained from a public cistern. Much fruit is raised here, and most of the trade is with the Danish island of St. Thomas.

Vieques, thirteen miles east of Puerto Rico, has an area of more than one hundred square miles. The land is very fertile, and it has a population of about 6,000. Most of the people are engaged in agriculture and fruit raising.

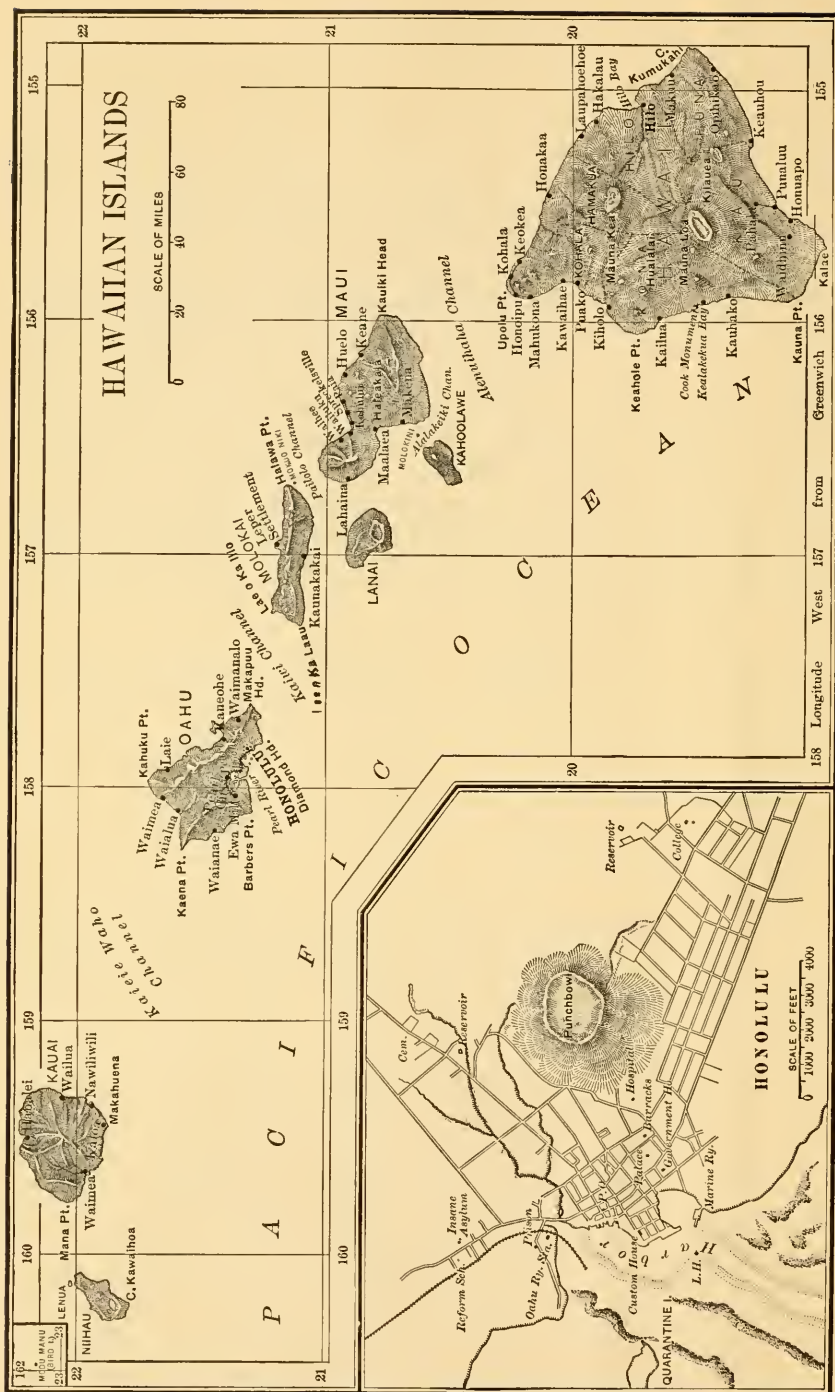
THE HAWAIIAN ISLANDS.

Physical Features.—The Hawaiian Islands lie in the Pacific Ocean, 2,100 miles southwest of San Francisco. The most southern point of the group is in latitude $18^{\circ} 50'$ N., which corresponds to that of the northern coast of Puerto Rico, and of Vera Cruz, Mexico. The most northern point is in latitude $23^{\circ} 5'$, which is nearly the same as that of Havana in Cuba, and of the extremity of the peninsula of Lower California. The islands extend in an irregular line from Hawaii, the largest of the group, northwestwardly to a distance of about 400 miles. They are eight in number, besides several uninhabitable rocky islets. Their names and dimensions, beginning at the southeast, are as follows :

	LENGTH.	BREADTH.	AREA.
Hawaii.....	90 miles.	74 miles.	4,380 square miles.
Kahoolawe	11 “	8 “	55 “
Lanai	17 “	9 “	110 “
Maui.....	48 “	30 “	500 “
Molokai	40 “	7 “	200 “
Oahu.....	46 “	25 “	640 “
Kauai.....	25 “	22 “	565 “
Niihau	20 “	7 “	95 “

The total area of these inhabited islands is 6,545 square miles, or a little more than two thirds that of the state of Vermont. Hawaii is about twice the size of Delaware; Oahu is nearly half as large as Rhode Island.

All the islands are of volcanic origin, and the larger ones are very mountainous. The loftiest point is Mauna Kea in Hawaii, 13,805 feet in height. On the other islands the mountains rise to altitudes of between 4,000 and 5,000 feet. The entire group may be considered as consisting of the summits of a line of gigantic volcanoes rising from the bottom of the sea. The volcanic forces to which their formation is due are now extinct, except in the island of Hawaii. There the two volcanoes, Mauna Loa and Kilauea, are in almost constant activity. The former has an altitude of 13,700 feet, and its terminal crater, which is almost circular, has a diameter of one and a quarter miles, with nearly vertical walls from 500 to 600



feet high on the inner side. Kilauea, sixteen miles southeast of Mauna Loa, is only 4,400 feet in height, but it has the largest crater of any active volcano in the world. This crater is nine miles in circumference, and its vertical sides are not less than 1,000 feet in depth. At its bottom there is usually a glowing lake of lava. A third volcano on the same island is Hualalai, which has an elevation of 8,000 feet, and on its slopes and summit numerous craters of from 700 to 1,000 feet in diameter.

On the sides of all the mountains, especially where volcanic action has long been unknown, are deep ravines, produced by the rainfalls and other denuding agencies during untold periods of time. In many places the shores of the islands terminate in abrupt headlands, the cliffs sometimes rising to a height of 2,000 feet above the sea. There are no rivers, properly so called, but the surface is everywhere broken and diversified with valleys and running streams.

Mineral Products.—With the exception of the remnants of a few raised sea beaches of coral formation, all the rocks on the islands are of volcanic origin. The mineral products are neither numerous nor abundant. Limited deposits of native sulphur have been found; also, common salt, sal ammoniac, feldspar, gypsum, copperas, niter, and other volcanic products.

Climate.—The climate, although warm, differs in some essential features from that of other countries lying in the same latitude. "Here Americans and Europeans can work in the open air at all seasons of the year," says a pamphlet issued by the Hawaiian government. "The air is remarkably pure, coming over thousands of miles of ocean where all impurities must be removed. For nine months the fresh, and in many places strong, northeast trade winds constantly renew the atmosphere. As a consequence, contagious diseases are infrequent, and epidemics, when they occur, are usually of a mild type, rapidly run their course, and disappear."

The temperature is remarkably uniform, the annual average being about 73°. It never falls below 54° and seldom rises to 88°. This equability is due to the vast expanse of surrounding water, which is always of nearly the same temperature, and thus tempers the winds which reach the islands. The sky is usually cloudless, there being not more than two days in the year when the sun is entirely hidden from morning till night. There are no cyclones, and thunderstorms seldom occur. The average yearly rainfall throughout all the islands is about 50 inches; but in some places, especially on the island of Hawaii, it exceeds 200 inches. It is

heavier on the windward side of the large islands than on the leeward. So entirely agreeable is the climate at all seasons and times that the people spend the greater part of their lives out of doors.

Soil.—The most productive parts of the islands are in the neighborhood of the coasts; yet there are places even in this shore belt which are arid and almost barren. The interior is mountainous and rough, and in many localities the surface is covered with lava so recently deposited that no soil has formed. In other parts the soil is shallow, and yet sufficient for the luxuriant growth of a variety of tropical plants. About one fortieth of the area of the islands, equal to more than 100,000 acres, is covered with a deep, rich soil adapted to the growth of the sugar cane.

Vegetation.—The ravines and mountain slopes on the windward side are covered with forest trees and other tropical vegetation. The leeward side of the uplands, however, is comparatively bare. The forests contain an abundance of valuable timber. Coconut palms are numerous in the coast districts. Among the most remarkable trees are the screw pine and the candlenut tree, so called from the natives stringing together the kernels, which are very oily, and using them for candles. Almost all kinds of tropical fruits flourish here, but, with the exception of bananas and pineapples, no extensive or systematic cultivation of them has been attempted.

Animals.—There are but few native animals. When the islands were discovered, in 1778, the only quadrupeds to be found were hogs, dogs, and rats. Now, however, goats and cattle run wild in the woods and upon the mountains. There is a bat which flies in the daytime; but there are no reptiles except a species of small lizard. Fifty-three species of native birds have been described, and there are probably others to be discovered in the remote mountain districts. The house sparrow from Europe, and the maina and the turtle dove from China, are almost the only birds to be met with in the vicinity of the towns.

Resources and Industries.—The leading industry is the cultivation of sugar cane, for which the climate and a considerable area of soil seem especially adapted. The average yield is about 5,000 pounds of sugar per acre, and in some favored localities 12,000 to 14,000 pounds have been produced. In 1896 the exports of sugar amounted to 443,000,000 pounds. Large amounts of American capital have been invested in this industry, and to it the present prosperity of the islands is to a large extent due.

Next to sugar the most important product is coffee, and more and more attention is devoted each year to its cultivation. It grows

best on land 500 to 2,600 feet above the sea level, and its production does not require so much capital as does the cultivation of sugar cane. Within the last five years hundreds of thousands of trees have been planted, and coffee growing bids fair soon to become the chief industry of the islands.

Rice grows in the marshy lands, and yields two crops a year. None but Chinamen, however, have succeeded in cultivating it with profit; and yet in 1895 the exports of this grain amounted to 3,768,000 pounds. The taro, a plant indigenous to the Hawaiian Islands, is the principal food of the natives, its tubers being said to contain more nutriment for a given weight than any other vegetable food. It is estimated that one acre of this plant will yield enough food to support twenty-five persons for a whole year.

Almost all kinds of vegetables grow in profusion. Potatoes, cabbages, beans, radishes, and other similar food plants thrive and are of the finest quality. The cassava, a tuberous plant which furnishes the staple food for the people of Brazil, has lately been introduced into Hawaii. It is propagated easily, requires but little care, and yields abundantly.

All kinds of fruit grow here. The banana trade, although still in its infancy, amounts to more than 100,000 bunches per year. Pineapples are cultivated and exported in large numbers. The guava grows wild, and its fruit is made into a jelly for which there is a large demand. Other fruits are oranges, limes, alligator pears, native peaches, mangoes, custard apples, and pomegranates.

The tea plant has been introduced, and yields a tea of good quality. One eighth of an acre will produce more tea than a large family can consume, and its cultivation requires but little care.

There are several varieties of fiber plants which seem to do well on the islands. Among these are the sisal hemp and the bowstring hemp, both of which are cultivated. Ramie is grown in Hawaii, and yields five or six crops a year. A silky fiber, called pulu, which grows on the stems of a certain species of tree fern, is much used for stuffing cushions, and large quantities of it are gathered and exported.

There are many large sheep farms, and in 1895 the exports of wool amounted to \$227,000. The wild cattle in the mountains are hunted for the sake of their hides; but cattle raising is not found profitable except for home consumption. In Maui hogs are fattened upon the corn and potatoes that are raised there, and a ready market is found for them among the Chinese residents of the islands.

Commerce.—The commercial importance of the Hawaiian Islands may readily be inferred by observing their peculiar geographical position. They are almost on the direct line of travel between the Pacific coast of the United States and the ports of New Zealand and Australia. They are also but little removed from the accustomed routes from San Francisco to China and Japan. These facts have conduced very largely to their rapid commercial development. The trade is practically monopolized by the United States, more than 99 per cent. of all the exports being sent to this country, and more than 79 per cent. of the imports being American products. During the year 1896, more than 160 vessels entered the harbor of Honolulu, a number of them making many trips. The total foreign trade of the islands that year amounted to more than \$168,000,000.

History.—The Hawaiian Islands were discovered by Captain Cook, an English navigator, on the 18th of January, 1778. He called them the Sandwich Islands, in honor of his patron, the Earl of Sandwich. The natives received him with delight, believing him to be an incarnation of their god Lono. He visited Oahu, Niihau, and Kauai, and after a delay of three weeks proceeded northward to Alaska. Returning one year later, he anchored in Kealakekua Bay; and there becoming involved in difficulties with the natives, he was killed by them on the 13th of February, 1779. At that time the islands were said to have a population of more than 300,000, and each island was ruled by an independent chief. In 1792, Captain George Vancouver, when on an exploring voyage, touched at Hawaii, and was kindly received by Kamehameha, its ruler. This chief was anxious to possess a vessel similar to those used by Europeans, and his visitors aided him in laying the keel of one. During two subsequent visits to the islands, Captain Vancouver supplied the natives with the seeds of various useful plants and with the first cattle and sheep ever seen by them. In 1794, Kamehameha placed the island of Hawaii under the protection of Great Britain and hoisted the British flag at Kealakekua. Ten years later, Mr. Turnbull, an English voyager, found that ambitious chieftain in possession of a fleet of twenty small vessels, which he used for purposes of trade and warfare with the other islands. Long before his death in 1819, Kamehameha had made himself the master and king of the entire group. One of the first acts of his son and successor was the abolition of idolatry, which was accompanied by a general burning of temples and idols throughout all the islands. In 1820 the first missionaries from America arrived and began their labors in Oahu. In the same year the first whale

ship called at Honolulu, and this place soon became the favorite stopping place for whalers in the North Pacific. In 1824 the king and queen were persuaded to visit England, and while there both died of measles. The first treaty with the United States was concluded in 1826, and was designed wholly for the promotion of trade with the Hawaiians. In 1840 a constitutional form of government was adopted, restricting the powers of the king and establishing a legislature of two houses, and a judiciary department similar to that of the United States. In 1844 the independence of the islands was guaranteed by Great Britain, France, and the United States. In 1893, the arbitrary acts of Queen Liliuokalani in attempting to re-establish an absolute monarchy, led to her deposition and the formation of a provisional government which was soon afterwards recognized by the United States. In the following year a convention of representatives from the various islands met at Honolulu, framed a new constitution, and on the 4th of July formally proclaimed the Republic of Hawaii. The form of government was modeled after that of the United States, and Sanford B. Dole was elected the first president. Repeated attempts were made to secure annexation to the United States, but it was not until July, 1898, that these efforts were successful. On the 12th of August, the American flag was hoisted over the public buildings of Honolulu, and the Hawaiian Islands formally became a part of the great American republic.

People.—The latest census returns, taken in 1896, give the total population of the islands as 109,020. The number of natives is 31,019, or not quite one third of the entire population. Besides these, there are about 8,000 people of mixed Hawaiian descent. The Kanakas, as the natives are called, are noted for their gentleness and intelligence. Although individually brave and tenacious of their rights as freemen, they are a peace-loving race and easily governed. No other people have so readily adopted civilization, or become so soon and so thoroughly Americanized. All classes can read and write, and the English language is very generally spoken in preference to the mother tongue. Since the introduction of modern civilization upon the islands the native population has steadily decreased, being now barely one eighth of what it was estimated to be one hundred years ago. The immediate cause of this reduction is probably due in a large measure to the radical changes which civilization has made in the manners and customs of the people, depriving them of that lightheartedness and freedom from care which characterized their former life.

Of the other inhabitants, there are 22,329 Japanese, 19,382

Chinese, 8,232 Portuguese, and 1,538 British, besides several hundreds of Germans, Norwegians, and people of various other nationalities. The Americans, who form the dominant class, number only 2,266, or about one fiftieth of the total population.

Towns and Villages.—The capital and principal port of the Hawaiian Islands is Honolulu, situated on the south side of Oahu, on a narrow plain at the foot of a range of mountains. Here are the government houses, a fort, a customhouse, several churches, and numerous handsome residences. The harbor, which is more than a mile in length, has a wharfage front of 1,900 feet, and gives anchorage to the largest vessels. Here are several manufactories, including planing mills, rice mills, and iron mills. Population of city and surrounding district, 29,920.

Hilo is the chief town of Hawaii. It is situated in the midst of most beautiful scenery, on the shores of a bay seven and a half miles wide and three miles deep. Surrounding it are extensive groves of cocoanut and breadfruit trees, and large plantations of sugar cane. The town contains several large buildings, both public and private, and ranks next to Honolulu in importance. It has about 12,000 inhabitants.

Kona is a settlement on Kealahou Bay, on the west side of Hawaii. Near here Captain Cook was killed, and a monument to his memory has been erected at the village of Kanawala.

On both Oahu and Hawaii are several other towns and villages, but they are small and of but little commercial importance.

Lahaina is an important place on the west side of Maui. The town is principally composed of grass houses, and contains a government building and a seminary. Other flourishing villages on the same island are Wailuku, Kahului, and Spreckelsville.

The island of Kauai is considered one of the most pleasant of the group, is well watered, and contains large plantations of sugar and coffee. There are a number of villages scattered along its coast, and it has several small but excellent harbors.

Molokai, although one of the largest of the group, has but few inhabitants and no towns worthy of mention. One third of the entire island is a barren waste. On the north coast, on a peninsula surrounded on three sides by the ocean and on the fourth by a high precipice, is the leper settlement, to which all persons afflicted with this disease are banished. Here are two small villages inhabited by lepers.

THE PHILIPPINE ISLANDS.

Physical Features.—East of the Indo-China peninsula, and separated from it by the China Sea, lies an important group of islands called by the Spaniards *Islas Filipinas*, and known to us as the Philippines. The distance from the mainland of Asia to the nearest of these islands is about 600 miles. To the north is the island of Formosa, about 150 miles away; to the southwest, much nearer, is Borneo; to the east stretches the vast Pacific Ocean. The southernmost point of this great archipelago is only about five and a half degrees from the equator, having nearly the same latitude as British Guiana in South America; the northernmost point is in the same latitude as southern Cuba. The total length of the group, measured north and south, is about 1,000 miles; its greatest width is 640 miles. Its entire area, including both the land surface and the land-locked water between the islands, is estimated to be about 200,000 square miles.

The number of islands here crowded together is unknown. The most trustworthy Spanish reports place it at 408, besides innumerable rocks and barren islets. Other authorities estimate the number variously at from 800 to 2,000. Much more than half of the land surface of the entire group is included in the two large islands, Luzon and Mindanao. Luzon, in the northern part, is long and narrow, being 480 miles in length, and having an area equal to that of Ohio, or a little over 41,000 square miles. Mindanao, in the south, is very irregular in form and about the size of Indiana. In no other archipelago in the world are there so many islands of considerable size massed together within a space so limited. All are so closely packed together that the group may be considered as a single island broken up and intersected by innumerable narrow passages of water.

The Philippine Islands form links in the chain of upheaval which extends from Kamchatka to the Sunda Islands, and have been largely formed by volcanic forces, some of which are still in active operation. The two most important volcanoes in the archipelago are Apo, in Mindanao, and Mayon, in Luzon. These are probably the loftiest peaks, their summits reaching a height of from 8,000 to 10,000 feet. The surface is everywhere broken and uneven, the only



plains being the alluvial bottom lands that border the rivers. Along the seashore large tracts of upheaved coral reefs are sometimes seen, and raised sea beaches are found at considerable distances inland.

Owing to the peculiar disposition of the mountain ranges, space is afforded on the larger islands for the development of many water courses. Some of these are of considerable length and volume. The largest river is the Rio Grande de Cagayán, in Luzon, which has numerous tributaries and flows through a course of nearly 200 miles. Surpassing it in length, but not in volume, is the Rio Agusán, in Mindanao, which has its source near the southern coast of the island, and after flowing 236 miles, falls into the Bay of Butuán on the opposite side.

Climate.—Lying entirely within the torrid zone, the Philippines have a purely tropical climate. Since, however, they extend through nearly 15° of latitude, the weather in the extreme northern portions differs somewhat from that in the far south. During the year there are three seasons: the cold, the hot, and the wet. The first, which to Europeans is the most enjoyable of all, extends from November to March; the air is crisp and bracing, the sky is generally clear, and the mean monthly temperature is between 77° and 81° . The hot season, which comes next, continues until July; the hottest month is May, when the mercury sometimes rises to 100° . During the wet season the rain comes down in torrents, the rivers and lakes are swollen, and the low-lying valleys are flooded. The average annual rainfall at Manila is about seventy-five inches; the most rain falls in September, the least in February. From November to April the monsoons, or trade winds, blow regularly from the northeast; during the rest of the year they are from the southeast. The northern islands are in the track of the typhoons, violent cyclonic storms of wind and rain which have their origin in the Pacific Ocean and whose course in the Philippines is therefore westward. They never extend farther south than 9° north latitude, and hence are unknown in the southern islands.

Minerals.—Besides the rocks of modern volcanic origin, coral reefs, and coralline limestone, the geologist finds here gneiss, schists, and other metamorphic rocks; and in the north of Luzon there are granites, stratified limestone, conglomerates, and beds of marl. Two large coal fields are known to exist; one in the southern part of Luzon, the other occupying the western slopes of Cebu and the eastern slopes of Negros. Mines have been worked on a small scale, but the difficulty of transportation has hindered their development.

Gold has been found in the more mountainous and inaccessible districts. In the northern part of Luzon, copper is abundant. Several paying mines are now in operation, some of them being owned and controlled by European companies. Iron ore of an excellent quality occurs in Luzon and the smaller adjoining islands. Lead and mercury have been discovered, but nowhere in large quantities. Great deposits of sulphur exist in the neighborhood of some of the extinct volcanoes.

Forest Products.—The forests of the Philippines contain a variety of trees, many of which are of great value. Among those common to other parts of the world are cedar, ebony, ironwood, logwood, teak, and others equally familiar. Besides these, there are hundreds of varieties that are found nowhere else. The cocoanut palm flourishes everywhere, and every part of it is utilized by the natives. Bamboos, sometimes growing to a height of fifty feet, are abundant; canes, rattans, and other varieties of the calamus family are found in the forests; and these are made to serve a great variety of purposes. Mangoes, jack-fruits, medlars and all kinds of Malayan fruits grow in profusion.

Agriculture.—The most important agricultural products are tobacco, Manila hemp, sugar cane, and coffee. Until 1881, tobacco was a government monopoly; each district was obliged to furnish annually a certain amount, and peasants were forced to devote themselves to the tobacco crop when something else would have been more profitable. Manila hemp, or abacá, is a plant peculiar to the Philippines, and has never been successfully grown elsewhere. This plant is not a hemp, but a species of banana plant, quite similar in appearance to that which produces the well-known fruit. The fiber, which is used for making ropes, cordage, and paper, is obtained from the plant by the most primitive methods. The finest sugar comes from Panay; but it is also extensively cultivated in Luzon, Negros, and elsewhere. The quantity of sugar produced is enormous, the amount exported to foreign countries averaging 250,000 tons annually. Coffee is produced in nearly all of the islands, and large quantities are exported to European countries. Rice is extensively grown, and is the principal food of the natives. The cacao bean, which the Spaniards introduced from Mexico, grows luxuriantly, and from it chocolate of an excellent quality is produced. The Spaniards also introduced Indian corn from America, and this grain is now cultivated to some extent. Other agricultural products include cotton, pepper, ginger, and vanilla.

Animals.—The varieties of animals in the Philippines are few. Deer are found in the wild woods of nearly all the islands. White monkeys live in the forests of Mindanao, and several kinds of lemroids are common. The only beast of prey is a species of wild cat. Alligators and turtles are found in some of the rivers; and there are many species of lizards. Other reptiles include the boa, the python, and a small but very poisonous snake which lurks in the grass, and resembles a rice leaf in appearance. There are more than 200 species of birds, including many varieties known only in the Philippines. Insects are numerous during all seasons of the year. The butterflies are remarkable for their beauty, and the ants for their destructiveness. Among domesticated animals, the buffalo is the most important, it being used in all kinds of agricultural work. The horses are small, but well shaped and hardy. Cattle of European origin, and goats, cats, and dogs are common everywhere.

Manufactures and Commerce.—The natives are skilled in weaving both cotton and silk; but all their work is done by the most primitive methods. In Manila and elsewhere many women are employed in making hats, mats, cigars and cigar cases, and other light articles. Shipbuilding is carried on to some extent. There are also small tanneries, and shops for the manufacture of farming implements, wagons, and carts. But there are no large manufactories of any kind. Trade with the Philippines has been greatly hindered by the restrictions placed upon it by the Spanish government. No dealings with other countries were permitted until in 1809, when the English succeeded in establishing a commercial house at Manila. Manila remained the only port open to foreign commerce until 1842. In 1896 the total imports into the islands amounted to \$10,631,250, and the exports exceeded \$20,175,000. Nearly half of the imports during that year were from Great Britain and France; more than half the exports were to Great Britain and the United States. Domestic commerce is greatly impeded by poor roads and lack of facilities for transportation. One railroad, 123 miles in length, has been built in Luzon, extending from Manila into Pangasinán.

History.—Twenty-nine years after Columbus had discovered America, the famous Portuguese navigator, Magellan, made the first voyage across the Pacific. The squadron which he commanded had been equipped and sent out by the king of Spain, and therefore all the lands that were discovered were claimed as Spanish possessions. On the 16th of March, 1521, he came in sight of the southern point of Samar Island. Not finding a safe place to land, he turned his

vessels southward, and soon arrived at the small island of Malhou. It was the day sacred to St. Lazarus, and he therefore called the group St. Lazarus Islands. Making his way through narrow channels and among numerous rocks and islets, he arrived not long afterwards at a safe harbor on the east coast of Cebu. The natives were friendly, and their ruler besought the Spaniards to aid him in an expedition against his enemies. Magellan consented, and while leading an attack upon the savages of Mactan, a little island at the mouth of the harbor, he was killed.

It was many years before the Spaniards made any further attempt to explore the archipelago. The islands were known to them as the *Islas del Poniente*, the Islands of the West, while the Portuguese, who had reached this part of the world from the opposite direction, called them the Eastern Islands. In 1542, Lopez de Villalobos, crossing the Pacific from Mexico, arrived with five vessels off the coast of Samar, to which he gave the name of *Isla Filipina*, in honor of Prince Philip, afterwards Philip II. of Spain.

In 1565, Miguel Lopez de Legaspi, with a force of 400 men and a band of Augustine monks, founded the settlement of San Miguel in Cebu. It is said that within six years the greater part of the archipelago was reduced to subjection; but this, of course, extended only to the more accessible parts adjoining the coasts. During the progress of this conquest, the name *Islas Filipinas* first came to be applied to the entire archipelago. In 1571 Manila was taken, and made the seat of government.

For 200 years but little occurred to vary the comparatively monotonous history of the Philippines. The Dutch and the Portuguese attempted more than once to deprive Spain of some portion of her Philippine possessions, but never with success. In 1762, an English fleet of thirteen men-of-war appeared in the harbor of Manila. The Spaniards there had not even heard of the war, and were wholly unprepared for an attack. The city was bombarded and forced to surrender, and a ransom of \$5,000,000 was demanded. At the conclusion of peace in the following year, the city was restored to Spain.

The tyranny of the Spanish rulers and the oppressive taxation finally produced among the more civilized natives a desire for freedom. In 1896 the growing discontent culminated in an insurrection. On the 1st of May, 1898, war having been declared between Spain and the United States, an American fleet, under command of Commodore Dewey, entered the harbor of Cavité, in Manila Bay, and

destroyed or captured the entire Spanish fleet stationed there. In the following September the city of Manila, with its environs and adjacent territory, was surrendered to the American land and naval forces. Upon the conclusion of peace the entire group was ceded to the United States.

People.—When Magellan discovered the islands, nearly 400 years ago, he found some of the inhabitants partly civilized. They had a written language, and were somewhat advanced in the arts of weaving and metal working. These were probably Malays, and their descendants now form by far the largest part of the population. Among the present Malay inhabitants, the Tagals, who live chiefly in Luzon and the adjacent islands, are the most important. Nearly all profess adherence to the Roman Catholic Church. Their number is estimated at 1,500,000. The Visayas, who inhabit the islands to the south of Luzon and to the north of Mindanao, are also of the Malay race. Most of them are professed Christians, and do not differ essentially from the Tagals; but among the mountains there are still several wild tribes of Visayas who refuse to become civilized. A third class of Malays are those known among the Spaniards as Moros, and who inhabit the southern parts of the archipelago. These are Mohammedans, and lack that gentleness of character which distinguishes their northern kinsmen. They are the pirates of the Philippines, and for more than two centuries they were the terror of the seas. Besides these three principal Malayan peoples there are several other tribes, differing from one another in many important respects.

Chinese immigrants and Chinese half-breeds form a very important element in the population of the Philippines. They are the merchants and shopkeepers of the islands, and nearly all the banking houses and general stores are managed by them. There are said to be more than 30,000 of them now in Manila alone, and there is hardly a village in the archipelago without one or more of them among its inhabitants.

In the interior of Luzon, Panay, Negros, Mindoro, and Mindanao live the negritos, descendants probably of the first inhabitants of these islands. They are a dwarfish people, and their intelligence is of a very low type. They are now but few in number.

Besides the numerous races of natives, there are between 15,000 and 20,000 Spaniards, or people of pure Spanish blood, who have their homes here. By far the greater number of these live in Manila.

No accurate census of the population of the Philippines has ever

been taken ; but it is supposed to be about 7,000,000. This gives an average density of about 60 per square mile of land surface. There are said to be as many distinct tribes as there are islands ; and there are no fewer than 500 different languages and dialects spoken among the inhabitants.

Religion and Education.—The established church of the Philippines is the Roman Catholic. The ecclesiastical affairs of the island are under the control of an archbishop and three bishops. The clergy do their work faithfully and devotedly, and have exerted an immense beneficial influence upon the natives, over whom they have great power.

Education is much neglected. Although in nearly every town or village there is a school for natives under control of the government, neither the quantity nor quality of the instruction would be considered satisfactory according to American standards.

Cities and Towns.—Manila, the capital and largest city, is situated on Manila Bay, in the island of Luzon. It is a walled city, surrounded by a moat, and, where it does not front on the bay or river, by an outer ditch. The streets are well paved and lighted. Good bridges connect the city with its numerous suburbs. The population in 1898 is about 150,000. Cavité, on a low point of land 15 miles by road from Manila, is an important marine arsenal and military station. Here vessels are built and repaired, and docks have been provided for gunboats and also larger vessels. Iloilo, in the island of Panay, has a large trade in sugar and in the other products of the Visayan Islands. Next to Manila, it is the most important city of the Philippines. Population, about 11,000. Cebu, the capital of the island of the same name, has a cathedral, a courthouse, a telegraph station, and several handsome private edifices. Population, 35,243. Besides the places mentioned above, there are several hundred cities and towns having a population of from 1,000 to 20,000 each.

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